

S35D

EXPERIMENTAL AGRICULTURE

Editor

PROFESSOR J. P. HUDSON

Book Review Editor

DR. C. C. WEBSTER

Editorial Board

PROFESSOR E. W. RUSSELL (CHAIRMAN)

PROFESSOR A. H. BUNTING

PROFESSOR J. D. IVINS

PROFESSOR D. K. BRITTON

A. R. MELVILLE

DR. E. E. CHEESMAN

D. RHIND

DR. G. WATTS PADWICK



CAMBRIDGE UNIVERSITY PRESS

Bentley House, 200 Euston Road, London NW1 2DB

32 East 57th Street, New York, N.Y. 10022

Expl Agric.

Experimental Agriculture publishes the results of research on crops, herbage and forage, with the main emphasis on field experiments relevant to husbandry in the warmer climates of the world. It also includes accounts of new experimental techniques, discussions of specific problems met in countries where agricultural production is developing rapidly, review articles on new developments in scientific agriculture, and occasional papers on technical, economic and sociological aspects of farming systems. The journal is the successor to *The Empire Journal of Experimental Agriculture*.

Experimental Agriculture is published quarterly. Four parts form a volume.

Subscriptions may be sent to any bookseller or subscription agent or direct to Cambridge University Press, P.O. Box 92, London NW1 2DB or in the U.S.A. and Canada 32 East 57th Street, New York, N.Y. 10022. The subscription price of volume 12, 1976, is £16.50 net (including postage) for a volume (US\$46.00 in the U.S.A. and Canada), payable in advance; separate parts cost £5.00 net or \$14.00 each (plus postage). Second class postage paid at New York, N.Y.

Back Volumes. Inquiries for Vols. 1-32 of *The Empire Journal of Experimental Agriculture* should be addressed to Wm Dawson & Sons Ltd, Cannon House, Folkestone, Kent. Previously published parts of *Experimental Agriculture* are available from the London or New York offices of Cambridge University Press.

© Cambridge University Press 1976

Permissions. For permission to reproduce material from *Experimental Agriculture*, please apply to the London or New York office of Cambridge University Press.

ISI Tear Service, 325 Chestnut Street, Philadelphia, Pennsylvania 19106, U.S.A., is authorized to supply single copies of separate articles for private use only.

NOTES FOR CONTRIBUTORS

Contributions will be welcomed from scientists of all nationalities, particularly those working in tropical and sub-tropical countries where up-to-date techniques of agricultural experimentation are helping in the rapid development of more modern methods of farm production. Contributions, which must be written in English, should be sent to the **Editor, Professor J. P. Hudson, The Spinney, Wrington, Bristol BS18 7LB, England.**

Conditions of acceptance. Submission of a paper will be taken to imply that the material has not previously been published, and is not being considered for publication elsewhere. Papers published in *Experimental Agriculture* may not be reprinted or published in translation without permission from the Editor, given on behalf of the Editorial Board.

General lay-out. Before having their manuscripts typed contributors are asked to look carefully at the lay-out of other papers published in a recent number of this journal, to ensure that their own papers, as submitted, conform as closely as possible to

the accepted pattern. This very much facilitates the work of the Editor and may often result in a paper being published earlier than if it requires a great deal of detailed editorial attention. Numerical data, which should only be included if they are essential to the argument, can be presented either in the form of tables or diagrams, but should never be shown in both ways. It is not the normal custom of the Journal to publish notes shorter than about 2000 words (4 pages) or longer than about 6000 words (12 pages including illustrations).

Typescripts. A top copy and one carbon copy of the script should be submitted, typed with double spacing, on one side of the paper only and with margins of about 1½ inches at the left-hand side and head of each sheet. Quarto size is preferred to foolscap.

Title. The development of automatic bibliographic methods, based on single-word indexing of the significant words in the title, make it essential that the title of each paper should contain the maximum of relevant informa-

**THE RHODESIAN
JOURNAL OF
AGRICULTURAL
RESEARCH**

Vol. 14, No. 2

1976

CONTENTS

Animal Production

The effect of thiocyanate on the occurrence of goitre in newborn lambs, by C. P. Rudert and J. Oliver
Dietary factors involved in vitamin E deficiency in pigs, by D. B. Bellis

Pastures

Effects of frequency and height of cutting on some tropical grasses and legumes
2. *Stylosanthes guianensis* (Aubl.) Sw., by O. T. Mufandaedza

Soil Fertility

Manganese toxicity and molybdenum deficiency effects on maize grown in an acid fersiallitic red sandy clay loam, by P. D. Tanner

Fertilizers

Studies on sulphate fertilizers for Rhodesian crops
1. Effect of sulphur in fertilizer compounds on the yield and sulphur status of maize, by Penelope M. Grant and A. W. G. Rowell

Groundnuts

The influence of defoliation and pod removal on growth and dry matter distribution in groundnuts (*Arachis hypogaea* L. cv. Makulu Red), by J. H. Williams, J. H. H. Wilson and G. C. Bate

Book Reviews

**THE JOURNAL IS PUBLISHED
TWICE ANNUALLY**

Annual subscription: **R\$3,00**

Single numbers: **R\$1,50**

Specimen copies are available free of charge to libraries from:

**THE EDITOR, RHODESIAN JOURNAL
OF AGRICULTURAL RESEARCH
P.O. BOX 8108, CAUSEWAY,
SALISBURY, RHODESIA**

**Fundamentals of
Mycology**

J. H. Burnett

Second Edition

The first text to deal with the general features of structure, function and behaviour common to all fungi has been thoroughly updated. *Publication October Paper £10 approx*

Plant Virology

The Principles

A. J. Gibbs and B. D. Harrison

A modern exposition of plant virology suitable for plant pathologists and molecular biologists. *Cloth £16*

**Nitrogen
Metabolism in
Plants**

Leonard Beever

Contemporary Biology Series

A comprehensive account of the biochemistry of nitrogen metabolism in plants. *Cloth £14 Paper £6.95*

**The Filamentous
Fungi**

**Edited by J. E. Smith and
D. R. Berry**

**Volume 2: Biosynthesis and
Metabolism**

'... a sound foundation for more up-to-date information as it accumulates. *Biologist* of Vol 1: *Industrial Mycology Cloth £19.75*



Edward Arnold

25 Hill Street, London W1X 8LL

Pests of Field Crops

F. G. W. Jones and M. G. Jones

Second Edition

'... the revised edition of this book continues to give a comprehensive account of the important subject of field crops.' *Biological Conservation*

Cloth £8.50 net

Studies in Biology

60: The Secretion of Milk

Ben Mephram

Cloth £2.80 net Paper £1.40 net

64: Diseases in Crops

B. E. J. Wheeler

Cloth £2.80 net Paper £1.40 net



Edward Arnold

25 Hill Street, London W1X 8LL

Agronomy Journal

If you're an agronomist, crop or soil scientist, plant physiologist, agricultural chemist, climatologist, or geneticist, read **AGRONOMY JOURNAL**.

If you're interested in any of the aspects of crop and soil science, including crop physiology, breeding, production, management, fertility, and climatology, read **AGRONOMY JOURNAL**.

AGRONOMY JOURNAL is the official publication of the American Society of Agronomy. Recent issues have included articles on yield-nutrient relations; the effects of herbicides, nutrients, and fertilizers on plant growth; environmental factors affecting plants and soils; soil water regimes, soil temperature, irrigation, and drought stress; crop and range management; and notes on new technology, including computer programs and improved methods and equipment.

AGRONOMY JOURNAL keeps its readers informed on significant, new scientific advances. Keep up with the times. Read **AGRONOMY JOURNAL**.

AGRONOMY JOURNAL. Issued six times per year, subscription rates are \$22.00 per year (\$4.00 per issue). Add \$2.00 per volume or 50c per issue on orders outside the U.S.; advance payment in U.S. funds required on foreign orders.

Name

Address

City State Zip.....

Send your order to: American Society of Agronomy, 677 S. Segoe Rd, Madison, WI 53711, U.S.A.